IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Joseph Korb

Application No.: 09/503,037

Filing Date: February 11, 2000

For: METHOD OF AND SYSTEM FOR
      TRANSFERRING DATA OVER A
      WIRELESS COMMUNICATIONS
      NETWORK

Confirmation No.: 6037

Patent No.: 7,349,955 B1

Patent Date: March 25, 2008

Attorney Docket No.: 84582-4100

REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 C.F.R. § 1.322

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

   Patentees hereby respectfully request the issuance of a Certificate of Correction in
connection with the above-identified patent. The correction is listed on the attached Form
PTO-1050. The correction requested is as follows:

Column 5:

   Line 54 (claim 1 line 18), change "IITTP" to -- HTTP --.

   Line 60 (claim 1, line 24), change "pause" to -- parse --.

   Support for these changes appear in application claim 52.

Column 6:

   Line 42 (claim 13, line 3), after "the client" insert -- process --.
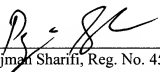
   Support for this change appears in application claim 78.

   The requested corrections are for errors that appear to have been made by the Office.
Therefore, no fee is believed to be due for this request. Should any fees be required, however,

please charge such fees to Winston & Strawn LLP Deposit Account No. 50-1814. Please issue a Certificate of Correction in due course.

Respectfully submitted,

_____   _____
      7- 18- 2008   Pejman Sharifi, Reg. No. 45,097
Date

WINSTON & STRAWN LLP
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212-294-2603

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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO.   : 7,349,955 B1
APPLICATION NO.   : 09/503,037
DATED: : March 25, 2008
INVENTOR(S)   : Korb et al.

    It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 5:
Line 54 (claim 1 line 18), change "HTTP" to -- HTTP --.
Line 60 (claim 1, line 24), change "pause" to -- parse --.

Column 6:
Line 42 (claim 13, line 3), after "the client" insert -- process --.

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wireless device is connected is known, the data packets are paced by the server process at a rate best suited for transmission over the particular type of network.

Referring to FIG. 7, once the file is received by the wireless device 12, the client process 32 first decrypts (step 122) and then decompresses (step 124) the file. The client process 32 then reads the tags of decompressed, decrypted data, interprets their contents, and displays the parsed Web page to the user in the browser 30 window on the display 36 (step 126).

The present invention has numerous advantages over the prior art. Because the Web page transmitted to the wireless device is greatly simplified from its original form, the size of the Web page is greatly reduced, resulting in a reduced transmission time over the wireless communications network. Additionally, because the Web page transmitted to the wireless device does not have any non-displayable elements, the transfer is extremely efficient since there is no transmission of superfluous data. Additionally, because the type of wireless communications network is known to the Web server 18, it is possible to pace the data packets at an optimal rate to provide a faster and more efficient data transfer.

It will be apparent to those of ordinary skill in the art that the present invention may readily implemented using computer programming techniques well known to those of ordinary skill in the art. It will be further apparent to those of ordinary skill in the art that the present invention is extremely versatile and may be modified and used in a virtually unlimited number of ways without departing from the scope of the claims attached hereto.

Thus, in accordance with the foregoing the objects of the present invention are achieved. While modifications to the present invention may be obvious to those of ordinary skill in the art, the invention so modified would not be beyond the scope of the appended claims.

What is claimed is:

1. A web server for transferring data from the Internet to mobile wireless devices that have limited display capabilities, comprising:

a web server that is connected to wireless devices via one or more corresponding wireless communications networks of the wireless devices, and is also connected to the Internet, and

wherein the web server is further configured to

receive requests from users of the wireless devices to view Internet web pages, wherein the requests, which are formatted in a transport protocol by a requesting wireless device to be suitable for transmission over its corresponding wireless communication network, are received by the web server in accordance with that transport protocol, wherein the transport protocol inserts an element that identifies the type of wireless device that is making the request,

HTTP ——— reformat the requests into HTTP requests,

send the HTTP requests to destination servers on the Internet in accordance with an Internet transport protocol,

receive the requested web pages from the destination servers,

parse ——— (pause) data elements contained in the received web pages and remove non-displayable data elements from the web pages to generate displayable web pages based on the wireless device type of the requesting wireless device, and

send the web pages, without including the removed data elements, over the wireless communications networks to the requesting wireless device.

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2. The web server of claim 1 wherein the web server is configured to receive a request for an Internet web page that is sent in accordance with the transport protocol that includes the wireless device type.

3. The web server of claim 1 wherein the web server determines the wireless device type to be the type of device identified in the transport protocol.

4. The web server of claim 3 wherein the web server comprises a server process and a child process wherein the child process reformats the requests into HTTP requests.

5. The web server of claim 4 wherein the child process parses data elements contained in the received web pages and removes non-displayable data elements from the web pages.

6. The web server of claim 5 wherein the child process reformats a requested web page by building tags containing remaining data elements.

7. The web server of claim 1 wherein the web server compresses and encrypts the web pages after the web server parses and removes non-displayable data elements from the web pages.

8. The web server of claim 1 wherein the web server is configured to generate a plurality of data packets for sending the data elements of a particular web page to a requesting wireless device.

9. The web server of claim 8 wherein the web server is configured to send that particular web page by pacing the transmission of the data packets from the web server to the requesting wireless device.

10. The web server of claim 9 wherein the pacing is performed based on a bandwidth capability of a corresponding wireless communications network on which the requesting wireless device is operating.

11. The web server of claim 1 wherein the web server is configured to convert the web pages from HTML to another tag language.

12. The web server of claim 1 wherein the web server receives a wireless network type as part of the transport protocol.

13. A system comprising the web server of claim 1 and a client process implemented on the wireless devices, wherein the client sends the requests to the web server in accordance with the transport protocol of the corresponding wireless ——— process communications network in which the wireless device is configured to operate.

14. The system of claim 13 wherein the transport protocol is for low bandwidth networks.

15. A system comprising the web server of claim 1 and one or more browser applications implemented on the wireless devices that allows users to input a URL of a web page of interest to the user as their request.

16. A method for transferring data from the Internet to mobile wireless devices that have limited display capabilities, comprising:

connecting a web server to wireless devices via one or more corresponding wireless communications networks of the wireless devices, and also connecting the web server to the Internet;

receiving requests from users of the wireless devices to view Internet web pages, wherein the requests, which are formatted in a transport protocol by a requesting wireless device to be suitable for transmission over its corresponding wireless communication network, are received in accordance with a transport protocol used by a requesting wireless device in its corresponding wireless communications network, wherein the trans-